

ABSTRACT

Latching systems and methods are disclosed herein. A latch mechanism includes one or more sealed areas and one or more unsealed areas thereof. Also, a magnetic coupling mechanism is provided for coupling motion between the sealed area and the unsealed area and vice versa. The magnetic coupling mechanism can be configured to include a permanent magnet which generates a magnetic field for coupling the motion from the unsealed area to the sealed area and vice versa. The magnetic coupling mechanism can also be configured to include an electromagnet for generating a magnetic field for coupling thereof.